

AMENDMENTS TO THE CLAIMS

This listing of claims will replace all prior versions, and listings, of claims in the application:

Listing of Claims:

1. (Withdrawn) A partially light-reflecting, partially light-transmitting plate or sheet comprising a first body of light-transmitting material having an outer surface and an inner stepped or ramped surface carrying or conforming with and/or adhered to a semi-reflective coating and a second body of light-transmitting material, on the opposite side of said semi-reflective coating from said first body of material, said other side of said coating being correspondingly stepped or ramped, said second body of light-transmitting material having an outer surface remote from said coating and an inner surface conforming with and/or adhered to said opposite side of said semi-reflective coating, the refractive index of said second body of light-transmitting material being equal or close to that of said first body of light-transmitting material, whereby light suffers little or no refraction in passing from said first to said second body of light-transmitting material.

2. (Withdrawn) A plate or sheet according to claim 1 wherein at least one said outer surface of said plate has a surface relief or texturing to eliminate or reduce reflection of light at said surface.

3. (Withdrawn) A light-transmitting plate or sheet comprising a first body of light-transmitting material having an outer surface and an inner stepped or ramped surface carrying or conforming with and/or adhered to a second body of light-transmitting material, said second body of light-transmitting material having an inner surface conforming with and/or adhered to said stepped or ramped surface of said first body, the refractive index of said second body of light-transmitting material being different from that of said first body of light-transmitting material, whereby light is refracted in passing from said first to said second body of light-transmitting material.

4. (Withdrawn) A light-transmitting plate or sheet according to claim 3 wherein said inner stepped or ramped surface of said first body of light-transmitting material has a semi-reflective coating and said second body of light-transmitting material thus has its inner surface conforming with or adhered to said semi-reflective coating.

5. (Withdrawn) A light-transmitting plate or sheet according to claim 3 wherein said stepped or ramped surface has no reflective or semi-reflective coating but wherein the stepped or ramped interface, corresponding with said surface, between said first and second bodies of light-transmitting material is rendered at least partially light reflective as a result of the refractive index difference between the two materials.

6. (Withdrawn) A plate or sheet according to claim 1, wherein individual portions or facets surfaces of said stepped or ramped surface have surface relief or texturing.

7. (Withdrawn) A plate or sheet according to claim 1, wherein individual portions or facets surfaces of said stepped or ramped surface are convexly or concavely curved.

8. (Withdrawn) A plate or sheet according to claim 1, wherein at least one of said light-transmitting materials is characterised by refractive index variations forming light-deviating features imparting bulk light-diffusing properties to the material.

9. (Withdrawn) A light crystal display incorporating a plate or sheet according to claim 1.

10. (Original) An LCD display, incorporating a light-transmitting element having a surface with surface relief or texturing to eliminate or reduce reflections.

11. (Currently Amended) ~~A display~~ The LCD display according to claim 10 wherein said surface of said element forms the surface of the display which is closest to the viewer.

12. (Currently Amended) ~~A display~~ The LCD display according to claim 10, wherein said element has one surface which is stepped to form a Fresnel refracting arrangement.

13. (Currently Amended) ~~A display~~ The LCD display according to claim 10, wherein said element has one surface which is stepped and is rendered at least partially light-reflecting to form a Fresnel reflecting arrangement.

14. (Currently Amended) ~~A display~~ The LCD display according to claim 10, wherein individual portions or facets of said stepped or ramped surface are convexly or concavely curved.

15. (Currently Amended) ~~A display~~ The LCD display according to claim 10, wherein said light-transmitting material is characterised by refractive index variations forming light-deviating features imparting bulk light-diffusing properties to the material.

16. (Withdrawn) A plate or sheet of light-transmitting material which sheet has one surface stepped or ramped to act as a Fresnel refractor or reflector and has an opposite surface which has surface relief or texturing to reduce reflection of light from that other surface.

17-19 (Canceled)

20. (Currently Amended) An LCD display incorporating a plate or sheet ~~according to claim 16~~ of light-transmitting material which has one surface stepped or ramped to act as a Fresnel refractor or reflector and has an opposite surface which has surface relief or texturing to reduce reflection of light from that other surface.

21. (Withdrawn) An optical device comprising an element of light-transmitting material having a surface thereof configured to form a stepped, Fresnel-type light refracting element, said element incorporating an array of graded refractive index structures adapted to impart light dispersing or diffusing characteristics to said light-transmitting material, or the element having a layer configured to form said stepped surface and an additional layer incorporating such an array of graded refractive index features.

22. (Withdrawn) An optical device according to claim 21 wherein said graded refractive index features are of a size which is small in relation to the spacing between adjacent steps of the stepped Fresnel-type surface of said element.

23. (Withdrawn) An optical device according to claim 21, wherein said element has the general form of an extended, generally planar sheet or layer, and said graded refractive index structures each have a graded refractive index distribution, in a plane parallel with that of said sheet or layer, which is substantially the same in different parallel planes at successive respective positions along an axis extending from one side of said generally planar sheet or layer to the other.

24. (Withdrawn) An optical device according to claim 23, wherein said graded refractive index structures each have a graded refractive index distribution in such planes, which is substantially the same at all points along an axis perpendicular to the plane of said sheet or layer.

25. (Withdrawn) An optical device according to claim 20 wherein each said graded refractive index structure is a lens having an axis extending perpendicular to the plane of said planar sheet or layer, the refractive index within said structure being substantially constant along a line parallel with said axis and varying with distance from said axis.

26. (Withdrawn) An optical device according to claim 21, wherein one surface of said material is coated with light-reflecting material.

27. (Withdrawn) An optical device according to claim 26 wherein the stepped surface is coated with light-reflecting material.

28. (Withdrawn) A plate or sheet according to claim 3, wherein individual portions or facets surfaces of said stepped or ramped surface have surface relief or texturing.

29. (Withdrawn) A plate or sheet according to claim 3, wherein individual portions or facets surfaces of said stepped or ramped surface are convexly or concavely curved.

30. (Withdrawn) A plate or sheet according to claim 3, wherein at least one of said light-transmitting materials is characterized by refractive index variations forming light-deviating features imparting bulk light-diffusing properties to the material.

31. (Withdrawn) A liquid crystal display incorporating a plate or sheet according to claim 3.

32. (Withdrawn) A plate or sheet according to claim 17, wherein individual portions or facets of said stepped or ramped surface are convexly or concavely curved.

33. (Withdrawn) A plate or sheet according to claim 17, wherein said light-transmitting material is characterised by refractive index variations forming light-deviating features imparting bulk light-diffusing properties to the material.

34. (Withdrawn) A plate or sheet according to claim 18, wherein said light-transmitting material is characterised by refractive index variations forming light-deviating features imparting bulk light-diffusing properties to the material.

35. (Currently Amended) An LCD display incorporating a plate or sheet according to claim 20, wherein said stepped or ramped surface has a reflective or semi-reflective coating to render the stepped or ramped surface fully or partially light reflective.

36. (Currently Amended) An LCD display incorporating a plate or sheet according to ~~claim 18~~ claim 20, wherein individual portions or facets of said stepped or ramped surface are convexly or concavely curved.

37. (Currently Amended) ~~An~~ The LCD display incorporating a plate or sheet according to ~~claim 19~~ claim 20, wherein said light-transmitting material comprises refractive index variations forming light-deviating features imparting bulk light-diffusing properties to the material.

38. (Withdrawn) An optical device according to claim 22, wherein said element has the general form of an extended, generally planar sheet or layer, and said graded

refractive index structures each have a graded refractive index distribution, in a plane parallel with that of said sheet or layer, which is substantially the same in different parallel planes at successive respective positions along an axis extending from one side of said generally planar sheet or layer to the other.

39. (New) An LCD display having an LCD cell having upper and lower transparent plates superimposed upon a plate of light-transmitting material having a planar upper face parallel with the upper and lower plates of the LCD cell and having a Fresnel-stepped or ramped lower surface which is provided with a semi-reflective or transfective coating, the plate being interposed between the LCD cell and a back lighting assembly arranged to direct light towards the cell perpendicularly to the faces of the latter, whereby ambient light incident on the LCD cell at an angle to the perpendicular to said upper and lower plates and passing through the cell to said plate to be reflected by said semi-reflective coating can be reflected thereby to pass substantially perpendicularly through said cell.

40. (New) An LCD display having an LCD cell having upper and lower transparent plates superimposed upon a composite, partially light-reflecting, partially light-transmitting plate which comprises a first body of light-transmitting material having an upper, outer surface which is generally planar and an inner stepped or ramped surface carrying or juxtaposed with a semi-reflective coating, said composite, partially light-reflecting, partially light-transmitting plate further comprising a second body of light-transmitting material provided on the opposite side of said semi-reflective coating from the first body of light-transmitting material, the inner or upper surface of said second body conforming to the underside of the coating, the upper surface of said first body, and the lower surface of said second body being planar and parallel with one another, said composite plate being interposed between the LCD cell and a back lighting assembly arranged to direct light towards the cell perpendicularly to the faces of the latter, whereby ambient light incident on the LCD cell at an angle perpendicular to said upper and lower plates and passing through the cell to said composite plate to be reflected by said semi-reflective coating can be reflected thereby to pass substantially perpendicularly through said cell, while light from said back lighting assembly can pass through said composite plate without being significantly deviated.

41. (New) The LCD display according to claim 40, wherein said second body of light-transmitting material is of the same refractive index as said first body.